Award ID: RP150578

Project Title:

The Combinatorial Drug Discovery Program (CDDP)

Award Mechanism: Core Facility Support Awards

Principal Investigator: Davies, Peter

Entity:

Texas A&M University System Health Science Center

Lay Summary:

While there have been spectacular advances in our ability to understand the basic mechanisms that contribute to the growth of many types of cancer, there remain significant challenges in translating these discoveries into treatments that are of direct benefit to patients. Part of the problem is that many cancer researchers lack access to the types of specialized resources for drug discovery that are available to scientists working in pharmaceutical companies. The goal of the GCC High Throughput Screening Program, has been to provide Texas' cancer researchers with access to state-of-the-art facilities and cutting-edge technologies that they can use to translate the results of their research into new treatments for cancer. The Combinatorial Drug Discovery Program (CDDP), the subject of this proposal, is a critical component of this larger program. The CDDP is focused on helping researchers to find new ways to use existing drugs, either alone or more often in combination, to treat different types of cancer. The great advantage of redirecting "old" drugs to "new" uses (drug repurposing) is that a great deal is already known about the properties of established drugs, their side effects, their dosing requirements etc. making it much cheaper and much faster to get them into the clinic than if they were brand new drugs. This CFSA grant proposes to expand and enhance the capabilities of the CDDP, increasing its ability to meet the demands the cancer researchers who are eager for its services. The physicians and scientists who are planning to make use of this newly expanded program are conducting research that is at the forefront of research to discover new therapies for devastating diseases such as Triple Negative Breast Cancer, Melanoma, Pancreatic Cancer and Pediatric Brain Cancer. Research supported by this core facility will have a direct impact on the development of new treatments for these and many other forms of cancer.